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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,954	01/05/2000	JONATHAN LEE SULLIVAN		9970

7590 12/13/2001

DENNIS L THOMTE  
801 GRAND AVENUE  
SUITE 3200  
DES MOINES, IA 50309

EXAMINER

HARRY, ANDREW T.

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 12/13/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

gm

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<b>Office Action Summary</b>	Application No. 09/477,954	Applicant(s) SULLIVAN, JONATHAN LEE	
	Examiner Andrew T Harry	Art Unit 2684	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by **Matai et al. U.S. Patent 6,064,863.**

As pertaining to claim 1, Matai teaches a wireless communications device that includes a housing with a radio circuit contained within the housing (see Matai col. 2 lines 34 – 37). Matai's wireless communications device also includes an internal antenna disposed within the housing which is RF connected to the radio circuit (see Matai col. 2 lines 35 – 40). Also mounted on Matai's device is an external antenna that is retractable and is capable of moving back and forth between a retracted and extended position (see Matai col. 2 lines 25 – 34 and Figures 2A and 2B). The external, retractable antenna described by Matai is also RF connected to the radio circuit inside the housing (see Matai col. 2 lines 35 – 44).

Regarding claim 2, Matai's wireless communications device contains a switching mechanism that operatively connects the said internal and external antennas to the said

radio circuit mentioned above (see Matai col. 2 lines 37 – 40). Matai also teaches that when the external antenna is in the retracted position the internal antenna is in circuit (connected to the radio circuit) and the external antenna is out of circuit (not connected to the radio circuit) (see Matai col. 2 lines 44 – 54). Matai also teaches that when the external circuit is in the extended position the switching circuit switches the internal antenna out of circuit and switches the external antenna in circuit (see Matai col. 2 lines 55 – 65)

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matai as applied to claims 1 and 2 above, and further in view of **Chang, U.S. Patent 6,171,123**.

As pertaining to claim 3, Matai does not mention anything about a remote RF port in the disclosure of his wireless device. Chang does teach an electrical connector or RF port that is mechanically connected to the internal antenna (see Chang col. 2 lines 45 – 54). It would have been obvious to one of ordinary skill in the art at the time of Matai's disclosure to add to it Chang's RF port so that another antenna may be connected to Matai's radio device to increase its received signal strength or to possibly utilize the port as an output port for another device that may be connected Matai's mobile communications device.

As pertaining to claim 4, Matai does not mention anything about a remote RF port in the disclosure of his wireless device. Chang does teach an electrical connector or RF port that is mechanically connected to the internal antenna (see Chang col. 2 lines 45 – 54). It would have been obvious to one of ordinary skill in the art at the time

of Matai's disclosure to add to it Chang's RF port so that another antenna may be connected to Matai's radio device to increase its received signal strength or to possibly utilize the port as an output port for another device that may be connected Matai's mobile communications device.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Ylijurva U.S. Patent 6,140,970 teaches a radio antenna configuration scheme similar to that disclosed by the applicant.
- b. Suzuki U.S. Patent 5,801,661 discloses an antenna switching circuit suitable for a radio-frequency apparatus with a built-in antenna.
- c. Sroka U.S. Patent 5,245,350 teaches a retractable antenna assembly with retraction inactivation.
- d. Garay et al. U.S. Patent 4,661,992 discloses a switchless external antenna connector for portable radios.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Harry whose telephone number is 703-305-4749. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter can be reached on 703-308-6732. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

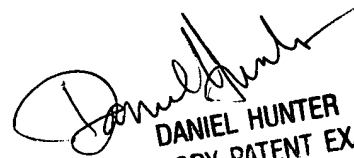
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

A handwritten signature, possibly reading 'ATH', in black ink.

ATH  
November 30, 2001

A handwritten signature of Daniel Hunter in black ink.

DANIEL HUNTER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600